

1 **DRY PAINT TRANSFER PROCESS AND PRODUCT**2 Abstract of the Disclosure

3 An automotive quality paint coat is laminated to the
4 exterior surface of a molded plastic car body member or
5 panel. In one embodiment, the paint coat includes an
6 exterior clear coat above a color coat. During
7 processing, the clear coat and color coat are each coated
8 on a temporary flexible casting sheet and dried. A high
9 gloss surface is transferred to the clear coat from the
10 casting sheet. The paint coat is then transferred from
11 the casting sheet to a thin, semi-flexible thermoformable
12 plastic backing sheet by dry paint transfer-laminating
13 techniques. The resulting laminate is thermoformed into
14 a complex three-dimensional shape of the car body member
15 or panel. The preformed laminate is then bonded to an
16 underlying plastic substrate material, by injection-
17 cladding techniques, for example, to form the finished
18 article. The paint coat has sufficient elongation to
19 retain exterior automotive appearance and durability
20 properties during thermoforming without deglossing. The
21 backing sheet absorbs defects in the substrate material so
22 the paint coat retains its appearance and durability
23 properties during the injection-cladding step. The
24 finished article comprises a high gloss, defect-free paint
25 coat on the exterior of a molded plastic car body member
26 or panel. Solution-form polyvinylidene fluoride/acrylic
27 paint systems have remarkably high combined gloss and
28 distinctiveness-of-image levels, together with durability
29 properties required for exterior automotive use.

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